



UNITED STATES PATENT AND TRADEMARK OFFICE

Can

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/633,315

08/04/2003

Young-Taek Yoo

1293.1815

3412

21171 7590 01/17/2007
STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

MUHAMMED, ABDUKADER S

ART UNIT

PAPER NUMBER

2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/633,315

Applicant(s)

YOO, YOUNG-TAEK

Examiner

Abdukader Muhammed

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 10-22, 24-27 and 29-33 is/are rejected.
- 7) ☒ Claim(s) 7, 9, 23 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 04 October 2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 29 is objected to because of the following informalities:

In claim 29, lines 4-5 “the **track-locking** state information” should be “the **tray-locking** state information” to be consistent.

Applicant is advised that should claims 1, 8, and 10 be found allowable, claims 15, 27, and 29 respectively will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claims 23 and 28 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 7 and 9 respectively. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim (allowability is indicated below). See MPEP § 706.03(k).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

Art Unit: 2635

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 8, 10, 11, 14-21, 24-27, 29, 30, 32, and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Howarth (US 6,549,490 B1).

Regarding Claims 1 and 15, Howarth teaches an apparatus for locking a tray (holder 72) of a disc drive (external drive component 50), comprising: a motor (motor 74) driven to move the tray into or out of the disc drive; a power supply unit (power supply 40) to supply a power supply to the motor; and a control unit (CPU 20) to control the power supply unit to cut off the power supply supplied to the motor, if a tray-locking command is input (see figure 2 and column 2, lines 26-32).

Regarding Claims 2 and 17, as applied to claims 1 and 15 above and Howarth further teaches a memory (memory 30) which is controlled by the control unit to store information of a tray-locking system (see figures 1, 2, 5, and 6).

Regarding Claims 3, 4, 19, 20, and 21 as applied to claims 2 and 17 above and Howarth further teaches that if a turn-on related signal of the power supply is input in a state when the power supply of the disc drive is turned off, the control unit determines whether a tray-locking

Art Unit: 2635

mode is set depending on whether the information representing the tray-locking state is stored in the memory. From the information the control unit decides to enable/disable the power supply (see column 4, lines 20-50 and figure 3).

Regarding Claims 8 and 27, Howarth teaches a method of locking a tray (holder 72) for a disc drive (external drive component 50), comprising: receiving a tray-locking request; and cutting off a power supply supplied to a motor (motor 74) driven to move the tray into or out of the disc drive, if the tray-locking request is received (see column 4, lines 20-50 and figures 2 and 3).

Regarding Claims 10 and 29, as applied to claims 8 and 27 above and Howarth further teaches storing information representing a tray-locking state, if the power supply of the disc drive is requested to be turned off; and turning off the power supply of the disc drive (see column 2, lines 10-32).

Regarding Claims 11 and 30, as applied to claims 10 and 27 above and Howarth further teaches the supplying the power to components of the disc drive except for the motor, if a turn-on related signal of the power supply of the disc drive is input in a state where the power supply of the disc drive is turned off; checking whether a tray-locking mode is set; and maintaining a state where the power supply is not supplied to the motor if the tray-locking mode is set (see column 5, lines 28-42 and figures 3 and 4).

Regarding Claims 14 and 32, as applied to claims 11 and 30 above and Howarth further teaches the supplying the power supply to the motor if the tray-locking mode is not set (see column 4, lines 8-16).

Art Unit: 2635

Regarding Claim 16, as applied to claim 15 above and Howarth further teaches that the control unit prevents the power supply unit from supplying power to the motor to stop the motor when the tray-locking command is input (see column 2, lines 26-31 and column 4, lines 8-16).

Regarding Claim 18, as applied to claim 17 above and Howarth further teaches that the memory is a nonvolatile memory. Note that Howarth discloses a hard drive can be as a memory, which keeps information even after power is turned off (see column 3, lines 18-21).

Regarding Claims 24 and 25, as applied to claim 15 above and Howarth further teaches that the a command input unit (key or punch-pad; see column 5, lines 49-56) to input at least a tray-locking request, a request to turn on/off a power supply, a reproduction request of the disc drive and a tray opening/closure command. Note that Howarth uses a computer as which obviously has all these command keys also note that except a locking request key (which is thought by Howarth) all other keys/buttons are inherent in all disc drive apparatuses.

Regarding Claim 26, as applied to claim 15 above and Howarth further teaches that if a signal is input requesting a reproduction of the disc drive, the power is supplied to all components included in the disc drive except for the motor (locking out the motor while allowing reading and/or writing data), whether the locking mode is set is determined, and a reproduction mode on a disc loaded in the disc drive is performed (see column 4, lines 20-50).

Regarding Claim 33, as applied to claim 27 above and Howarth further teaches that if a signal is input requesting a reproduction of the disc drive, supplying power to all components included in the disc drive except for the motor and performing a reproduction mode on a disc loaded in the disc drive. Note that Howarth teaches selectively disabling only the drive assembly (see column 2, lines 26-31 and also column 4, lines 20-50).

Art Unit: 2635

5. Claims 1, 6, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu et al. (JP Publication 2001-210003 A, machine translation is included with this office action).

Regarding Claims 1 and 15, Shimizu et al. teach an apparatus for locking a tray of a disc drive (external storage 76; see figure 5 and paragraph [0028]), comprising: a motor (main motor 25) driven to move the tray into or out of the disc drive; a power supply unit (power source; paragraph [0028]) to supply a power supply to the motor; and a control unit (CPU 68; see figure 5) to control the power supply unit to cut off the power supply supplied to the motor, if a tray-locking command is input (see paragraph [0028], [0029], and [0030]). Shimizu et al. teach even if the eject button is pushed the storage will not open and it is possible to prevent the write-in mistake by a user's inattention (see paragraph [0030]).

Regarding Claim 6, as applied to claim 1 above and Shimizu et al. further teach a display unit (liquid crystal touch panel 31) to display the condition of the external storage (see paragraph [0031], lines 7-10).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5, 6, 12, 13, 22 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howarth (US 6,549,490 B1) as applied to claims 1, 8, 21 and 27 above, further in view of

Art Unit: 2635

Shimizu et al. (JP Publication 2001-210003 A, machine translation is included with this office action).

Regarding Claims 5 and 22, Howarth teaches the limitations of claims 1 and 21 for the reasons discussed above. Howarth differs from the claimed invention in that it does not teach a display unit apparatus to show the condition of the tray.

Regarding Claim 6, Howarth teaches the limitations of claim 1 for the reasons discussed above. Howarth differs from the claimed invention in that it does not teach a display unit apparatus to show the condition of the tray.

Regarding Claims 12 and 31, Howarth teaches the limitations of claims 11 and 30 for the reasons discussed above. Howarth differs from the claimed invention in that it does not teach a display unit apparatus to show the condition of the tray.

Regarding Claim 13, Howarth teaches the limitations of claim 8 for the reasons discussed above. Howarth differs from the claimed invention in that it does not teach a display unit apparatus to show the condition of the tray.

Shimizu et al. teach a liquid crystal touch panel to display the condition of the external storage (76) (see paragraph [0031], lines 7-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a display unit in the system of Howarth since Shimizu et al. teach that by showing the condition of the external storage the user will be able to tell whether it is in a write condition or in ready condition (see paragraph [0031], lines 7-13).

Allowable subject Matter

Art Unit: 2635

8. Claims 7, 9, 23 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding Claims 7, 9, 23 and 28, a combination of Howarth (US 6,549,490 B1), Shimizu et al. (JP Publication 2001-210003 A), and Liao et al. (US Publication 2002/0172125 A1) disclose an apparatus and method of protection of manual ejection operation of disk drives which could be caused by carelessness. *But fail to show* the driving of the motor to move the tray into a closed position if the tray is in the open position when there is a tray-locking request.

Conclusion

10. The prior art made of record in PTO-892 Form and not relied upon is considered pertinent to applicant's disclosure.

Liao et al. (US Publication 2002/0172125 A1) teach a protection method for manual ejection operation of an optical disk driver. The method sets the tray of the optical disk driver to a locked state when the optical disk driver is in normal rotation (see abstract and page 1, paragraph [0012]).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdukader Muhammed whose telephone number is (571) 270-1226. The examiner can normally be reached on Monday-Thursday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on (571) 272-5026. Customer Service can be reached

Art Unit: 2635

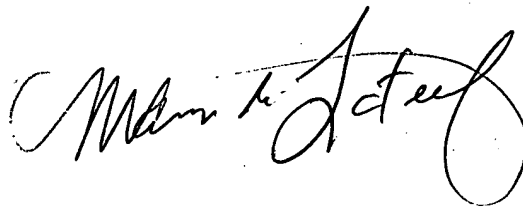
at (571) 272-2600. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

am

am

04 January 2007

A handwritten signature in black ink, appearing to read "Marvin Lateef", with a large, stylized loop at the end.

MARVIN LATEEF
SUPERVISORY PATENT EXAMINER